



2018 and 2019 Highlights

SOAR Wins Award for Excellence in Environmental Education

The Iowa Association of Naturalists (IAN) and the Iowa Conservation Education Coalition (ICEC) awarded the 2018 Frederic Leopold Environmental Education Award for outstanding environmental education efforts by business, industry, or labor to Saving Our Avian Resources. The IAN/ICEC Awards for Excellence in Environmental Education are awarded annually to recognize incredible contributions to the advancement of environmental literacy in Iowa.

SOAR joins a long history of outstanding environmental educators in the state of Iowa. This environmental education award is named in honor of Frederic Leopold. Leopold was an Iowa native and a successful businessman and community leader. He applied his personal beliefs about environmental stewardship to his business dealings. He enjoyed the outdoors and in his spare time, conducted one of the world's most extensive studies on the mating and nesting habits of wood ducks.



Grants Received

Generous donors and funders helped expand our infrastructure and our education program.

Flight Pen Extension, Roof Repairs 2018-2019

The 20'x60' soft release flight pen extension was finished in March 2019 and includes sky lights and rain access.

Flight conditioning for raptors is a crucial part of the rehabilitation process. This allows raptor patients to build strength and stamina prior to release. Flight areas also allow for Kay to accurately assess a patient's readiness for release.



This soft-release flight pen has been used for bald eagles, peregrine falcons, and red-tailed hawk releases. This type of release is much less stressful on the bird and on the rehabilitator! A special window is in the wall that can be opened when the birds are ready to be released. This allows the birds to leave the flight pen when they decide and can return for food if needed.

Roof repairs were done to the SOAR facility, including replacing damaged opaque roofing sections and adding a new ridge cap to the roof. Predator and mosquito barriers in the roof were replaced at the same time. Predator-safe flight areas are a requirement in all rehabilitation permits, so they are essential for the SOAR facility.

—The soft-release flight pen on 22 July 2020.

Freezer Building 2019

When SOAR's facility was planned and built in 1999, approximately 100 wild bird patients were admitted each year. Over the years, the admission rate has more than tripled. Additional flight areas have been added. As climate controlled space is limited, intensive care patients have had to share space with food storage freezers and food preparation areas. The combined heat output from the freezer units made it difficult to keep intensive care rooms at an appropriate temperature.

With funding assistance from the Community Foundation of Carroll County and support from the Avangrid Foundation / Avangrid Renewables a dedicated freezer storage building was added near the main building.



Education Outreach 2020

With the help of an Avangrid Foundation grant, SOAR added resin raptor skulls to our teaching collection. The touchable items are a huge hit with children and adults alike. We now have pull-up banners to use at events. One banner focuses on what SOAR does and the other banner has general information on raptors (what makes a bird a raptor) and the importance of habitat.



Plus, SOAR added "tech" to our world! We understand that the word "tech" and SOAR do not always go in the same sentence, so the addition of web cameras to use with education programs and Facebook live videos is going to stretch us! But we are certain they will be a positive influence on our efforts.

The Avangrid Foundation grant also helped SOAR expand and improve middle and high school curriculum for educators' use of our bald eagle database. Authentic local data is a focus of the Next Generation Science Standards. As this project is finished, you will be able to find links and information from our website (<https://soarraptors.org/student-data/>).

You can also visit the [Avangrid Foundation foundation website \(https://www.avangrid.com/wps/portal/avangrid/aboutus/avangridfoundation\)](https://www.avangrid.com/wps/portal/avangrid/aboutus/avangridfoundation) for more information.

HY19 Bald Eagles

SOAR admitted six hatch-year 2019 (HY19) bald eagles as nestlings and ten other HY19 bald eagles that had fledged and later needed help. "Famous" nestlings included all the eaglets from the Raptor Resource Project nest cameras on the Decorah North Nest and near the Decorah Fish Hatchery.

Four of the HY19 bald eagles nestlings were soon on the same rehabilitation plan. Eaglets D33, DN9, Allamakee, and Calmar transitioned from individual intensive care crates, to a 10'x20' flight room for branching activities, then on to the 20'x60' flight pen for first flights and strength training. Trail cameras and a GoPro were placed inside this flight area so we could get glimpses of the eaglets. After some time in the 100' eagle flight pen to learn socialization with all ages of eagles and to really test their stamina, the group was returned to the 20'x60' flight pen in preparation for a soft-release. The release door on the soft release flight pen was opened on 18 September 2019 and one-by-one they left! Video footage from SOAR was included in a NOVA show, "Eagle Power." Read the full recap of their story here: <https://soarraptors.org/2019/10/the-story-of-four-hy19-bald-eagles/>



—Pics of hatch-year 2019 bald eagles from the Decorah, Iowa area, D33 and DN9, on 23 July 2019 as they were moved to a larger flight room.

Rehabilitation Highlights

2018 was a record we'd like to not beat - 420 sick and injured birds were admitted to SOAR. Admits have more than tripled since SOAR's inception in 1999.

Thankfully, our group of friends and donors has grown, too. Your support enables us to do the necessary work of raptor rehabilitation. This table shows the admit data from the last five years, by group.

Unique Admits

You can see some of the unique admits in the chart. One northern harrier was admitted in 2018 and another in 2019. The low numbers of harriers we see is not surprising since this raptor is on the Iowa endangered species list. Golden eagles and Mississippi kites are also rare birds in Iowa! A golden eagle was admitted in late 2019 and a Mississippi Kite was admitted in June 2020 (see photo).



Rescuers and transporters

Our thanks goes out to our volunteers, other rehabilitation groups and their volunteers, our veterinarians, our state and federal conservation officers, police officers and county deputies, natural resource agency and county conservation staff, local humane societies and city animal rescue staff, plus the concerned citizens that make initial contact. We could not do this without our donors and our cooperating veterinarians and their clinics!



—A red-tailed hawk before release. Photo Kr Bossard.

Release Parties

SOAR's annual release celebration moved to Story County Conservation's McFarland Park, beginning in 2018. McFarland Park is centrally located in Iowa, just off I-35! The conservation board staff have been fabulous to work with and we appreciate their welcoming us! In 2018 and 2019, we released eagles, kestrels, barred owls, and red-tailed hawks, ate pie, enjoyed live music, and learned from education ambassadors. This event is a much-needed celebration every year.

Admits by group	2015	2016	2017	2018	2019
Buteos	50	67	81	84	76
Accipiters	26	29	34	30	18
Owls	122	128	129	148	116
Vultures	14	9	10	15	5
Harriers	1	1	0	1	1
Kites	0	1	0	0	0
Eagles	22	43	49	76	61
Falcons	22	27	36	27	24
Osprey	2	2	1	1	0
<i>Raptor total</i>	<i>259</i>	<i>307</i>	<i>340</i>	<i>382</i>	<i>301</i>
Ducks / geese / swan	71	30	22	30	46
Other water birds	0	8	7	4	1
Songbirds	13	11	5	3	1
Others	10	29	4	1	4
Non-raptor total	106	78	38	38	50
Grand Total	365	385	378	420	351

SOAR Education Programs

SOAR programs stress our mission of raptor rehabilitation, education, and research and are adapted to each group's specific needs as best we can.

SOAR educators and education birds engage learners at public events (like bald eagle days, city celebrations, and organization programs), community college course special invites, school field trips and events, teacher professional development, and Facebook live videos! Our educators are Kay, Terrie, Linette, Savanna, and Cassie; with help from Alex, Taylor, Kallie, Ian, Deb, Matt, Roger, Megan, Christina, and Chris.

For 2018 and 2019, SOAR averaged 68 events, with 120 programs that reached approximately 7,800 people annually. Add in our virtual learners through Facebook live videos, TV interviews, and radio programs, SOAR reaches well over 10,000 individuals each year. Plus every interaction that our SOAR team and volunteers has with concerned citizens about a raptor in need of assistance is an educational opportunity also!

The SOAR 2020 program calendar was full... 11 events with 23 programs reached over 1,770 individuals before a public health crisis altered everyone's day-to-day activities. Unfortunately, 20 programs have been cancelled from mid-March to the end of June. At this time, SOAR is not sure when face-to-face programming will be available.

Program questions can be sent to educate@soarraptors.org. Public events are posted on the website [events page](http://soarraptors.org/events/). (<http://soarraptors.org/events/>).



—Education kestrel, Blaze. Photo Kr Bossard.

Bald Eagle Admits, Lead Research, Data

Bald Eagles and Lead Poisoning

SOAR started collecting data on bald eagles, including blood lead and liver lead levels, beginning in 2004. From 2004 to 2014, other wildlife rehabilitators in Iowa collected the same data. SOAR analyzed this collective data and you can learn more in this research paper.

<https://bit.ly/3goQxgN>

The SOAR team are, admittedly, “data nerds” and we like to analyze the data collected in different ways!

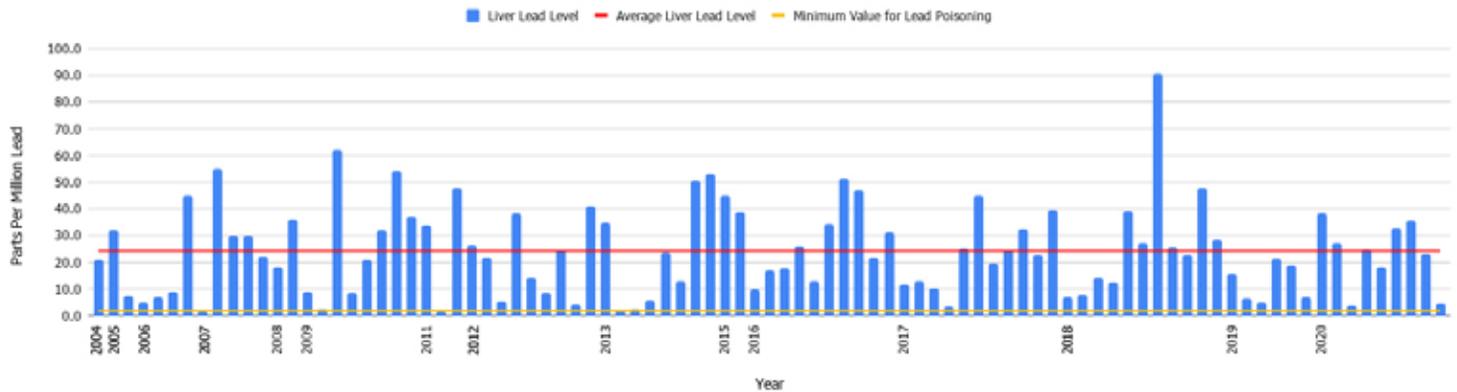
A bald eagle with a liver lead level of 2.0 parts per million (ppm) or greater is considered poisoned. We looked at just those admitted bald eagles that died

and had a liver lead level of 2.0 ppm or greater. 167 bald eagle livers were tested (1 January 2004 through 30 June 2020) for lead and of those, 91 livers had a lead level 2.0 ppm or greater. 54.5 percent of the eagles (167) had lead poisoning and we determined that 24.2 ppm is the average liver lead level. A 6.0 ppm liver lead level is considered lethal. See the chart below that has each liver lead level in the blue columns, with the red line being the average. The yellow line shows 2.0 ppm.

When the average liver lead level is four times the lethal level, it tells us that bald eagles are getting large doses of lead. This makes sense seeing the amount of lead fragments we see in the deer and gut pile x-rays.

Liver Lead Levels of 2.0 ppm or Greater 1 Jan 2004 - 30 Jun 2020

Bald Eagles Admitted to Iowa Wildlife Rehabilitators, n=91

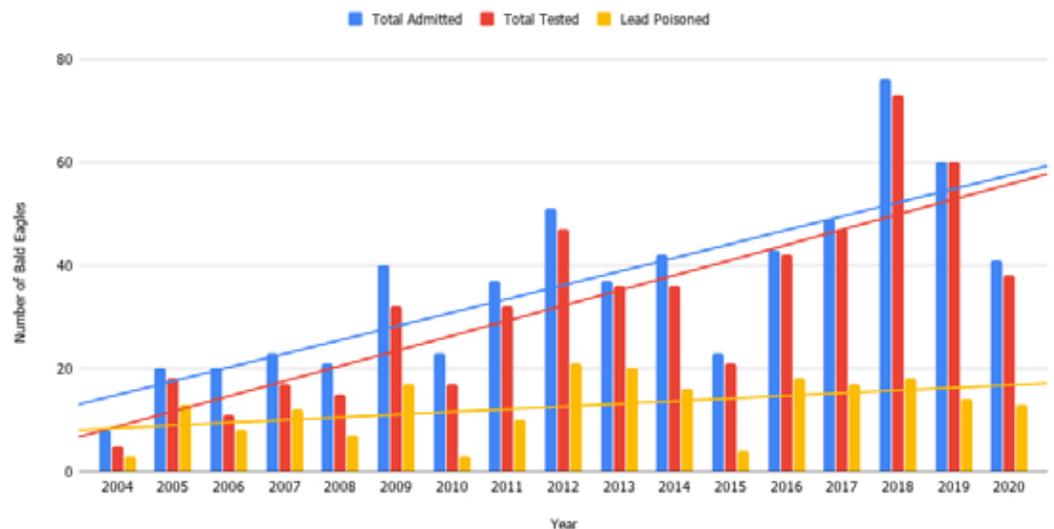


Trends in Bald Eagle Lead Poisoning

Overall, the number of bald eagles admitted to Iowa wildlife rehabilitators (SOAR and others) is going up due to the increased number of summer admits. The blue columns show the total number of bald eagles admitted and the red columns show the number of bald eagles with a lead test - most of the bald eagles admitted have been lead tested. Even with the increased number of bald eagle admissions, the number of lead cases year-to-year is about the same (yellow line).

Trends in Lead Poisoning

Bald Eagles Admitted (n = 614) to Iowa Wildlife Rehabilitators 1 Jan 2004 - 30 June 2020



Seasonality of Bald Eagle Lead Poisoning

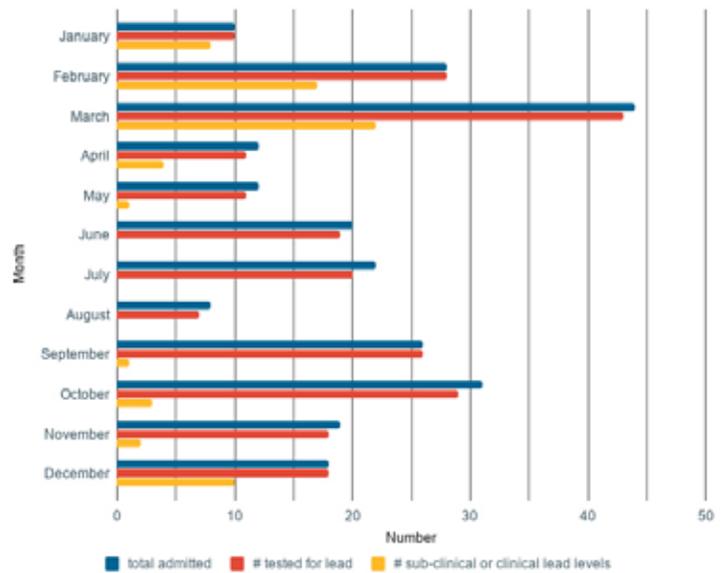
The data that SOAR has collected on bald eagle admits from 2015-2019 illustrates when bald eagles are admitted and when we are likely to see elevated lead levels. The yellow bars in the chart below show the number of bald eagles with elevated lead levels by month. Look for yellow bars in June, July, August... there aren't any! SOAR does not see lead poisoned bald eagles in the summer.

By the Eagle Numbers 2015-2019

SOAR continues to collect data on all eagles admitted including age, gender, lead levels, morbidity and mortality, final outcome, and more. Why is it important to continue this work? Documenting lead levels in bald eagles over time allows biologists to understand or see changes in data over time. Are education efforts encouraging hunters and anglers to switch to non-toxic / non-lead ammo and tackle effective? In other words, are we seeing fewer eagles admitted with elevated lead levels? A lot of variables can impact this - heavy snow cover makes carcasses unavailable, the number of deer harvested, and the number of bald eagles wintering in Iowa. As data is collected over a long timeframe, these year-to-year variables have less impact on trends.

This data is the basis for our SOAR Student Data project (<https://soarraptors.org/student-data/>) that has

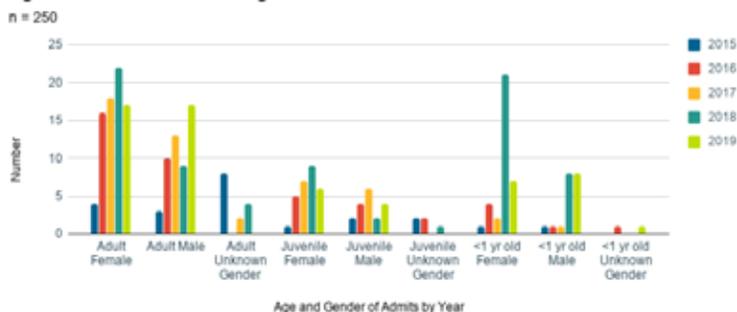
Seasonality of Bald Eagles Admitted to SOAR by Month 2015-2019



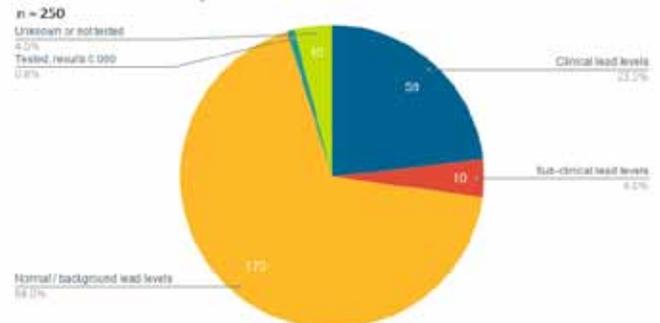
information for middle and high-school teachers to help them utilize this authentic data in their classroom. Using authentic, local data is a key ideal of science standards.

Here are a couple charts that are from the SOAR Student Data project. The age and gender chart highlights the increase in <1 year olds admitted in 2018 and 2019 as gnat infestation years.

Age and Gender of Bald Eagles Admitted to SOAR 2015-2019



Lead Levels of Bald Eagles Admitted to SOAR 2015-2019



Admits January to June 2020

It's been a busy year with eagle admits - 41 bald eagles during the first six months of 2020. All but one of the 2020 eagles admitted have had a lead test. Thirteen have had elevated lead levels, 27 with background levels. How do the admits for 2020-to-date stack up to annual numbers in previous years? See the graph on page 3 for number of admits for the previous five years.

Adult Female	13
Adult Male	12
Adult Unknown Gender	0
Juvenile Female	7
Juvenile Male	2
Juvenile Unknown Gender	0
<1 yr old Female	3
<1 yr old Male	2
<1 yr old Unknown Gender	2



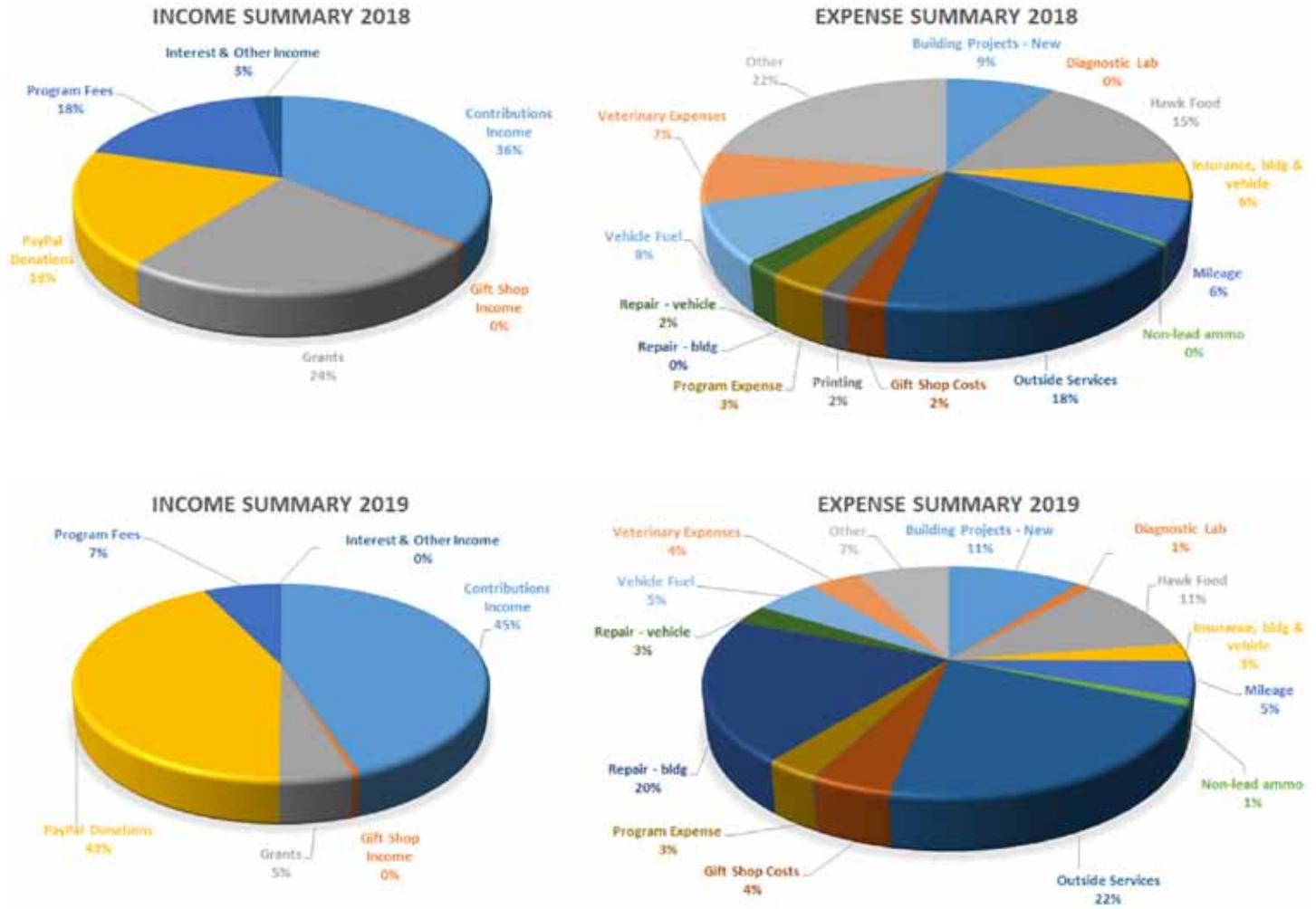
— Adult female bald eagle rescued in Allamakee County on 1/31/20. The eagle was not lead poisoned, but behaved as if she ingested a toxin. With supportive care, she cleared the toxin! This bald eagle was released at SOAR on 3/2/2020

SOAR Stewardship

Thank you to our friends, donors, and supporters! You all help us with the SOAR mission through your donations of talent, time, money, and requested items. Without your generosity, SOAR would not exist as it does now, nor could we provide care to our birdie patients. SOAR uses these resources wisely to support our mission.

Income and Expense Summary

Here is a summary of our income and expenses for 2018 and 2019. The “Hawk Food” expense means anything fed to patients and ambassadors. Vehicle Fuel is for the three SOAR vehicles, versus the Mileage expense where transporters and educators are paid some mileage.



—Ambassador Decorah, May 2020

In Remembrance

Thank you to those individuals and groups that donated in honor of or in memory of someone dear to them in the last two years. If any remembrance was missed, please advise admin@soarraptors.org.

In memory of...

Bob Anderson
 “Dad Decorah”
 Maureen Pelletreau
 Janet Lyons
 Sandra Johnson

In honor of...

Ambassador Decorah (many honored)
 Mary Jo Osterholm
 Peggy Huey
 Decorah Eaglets D32, D33, DN9
 (many honored)
 Sheila Rogers
 Kris Bossard

Other Ways to Support SOAR

- ❖ Check with your employer or investment manager about matching gift programs or donor-advised funds.
- ❖ Mark SOAR as your Amazon Smile charity (<http://smile.amazon.com/ch/42-1491749>)
- ❖ Visit and purchase a gift certificate for food or supplies from our Amazon Wish List (<http://amzn.com/w/3SMCJLTICQ3MM>) Please have gift certificates sent to SOAR at 25494 320th St., Dedham, IA 51440 or if electronic to fly@soarraptors.org.
- ❖ Write a review for SOAR on the Great Nonprofits website (<https://greatnonprofits.org/org/saving-our-avian-resources-s-o-a-r>)
- ❖ Shop the SOAR Store (<http://soarraptors.org/soar-store/>)
- ❖ Become a monthly donor (<https://soarraptors.org/support-soar/#Monthly>)
- ❖ Include SOAR in your planned giving. Please contact Linette at admin@soarraptors.org and she can help your accountant, lawyer, or financial planner with the needed information.
- ❖ Invite SOAR for educational experience to your Iowa group event

Tax Benefits of the CARES Act

The CARES (Coronavirus Aid, Relief, and Economic Security) Act includes provisions that impact your charitable goals.

- ❖ Required minimum distributions (RMD) are temporarily suspended for the 2020 tax year. If you are 70-1/2 or older, you can still make a tax-free gift to SOAR from your IRA and know that you are helping SOAR.
- ❖ An available charitable deduction of up to \$300 (\$600 for married couples) if you take the standard deduction.
- ❖ Cash contributions to qualified charities can be deducted up to 100% of your adjusted gross income for the 2020 calendar year for those who itemize.

Please consult your tax professional if you have any questions.

Top-Rated Nonprofit

SOAR has been honored with one of the first Top-Rated Awards of 2020 from Great Nonprofits! We appreciate all of your contributions!



Thank You for 20+ Years of Support



—Clockwise top left: HY20 peregrine falcon; Ana, Savanna, Taylor rocking the 20th Anniversary tee, kestrel with wing wrap, Kay with eagle for release, nestling kestrels, barred owls in the flight pen, red-tailed hawk before release, Cassie with Cedar (education screech owl), HY20 bald eagle "Dawson 1," Linette with Bella (education red-tailed hawk).

Linette

Linette Bernard,
Communications Director

If you received multiple copies or would prefer to receive via email, please email Linette at admin@soarraptors.org and tell her your preferred and / or correct address.

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Small to tall... each
ambassador thanks
you for supporting
SOAR today and
everyday!

soarraptors.org

